

## REMARKS

Claims 11, 21 and 28 have been amended. Claims 11, 14-21, and 24-30 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

**1-4.** Claims 11, 14-21 and 24-30 currently stand rejected for allegedly being directed to non-statutory subject matter. Specifically, the Official Action contends that “[t]he Office has established a new position with regards to claims directed towards data structures and collections of data and is set forth below. *Functional Descriptive Material per se and Non-Functional Descriptive Material per se are not Statutory. Computer-related products are classified into one of two groups: functional descriptive material and non-functional descriptive material. Functional material includes data structures (and computer programs which impart functionality when employed as a computer component). A data structure is a ‘physical or logical relationship among data elements, designed to support specific data manipulation functions’ (The New IEEE Standard Dictionary of Electrical and Electronic Terms 308 (5<sup>th</sup> ed. 1993)). Data packets are not considered to be data structures, but merely a collection of data. Functional material per se is not statutory. Cf. In re Warmerdam (disembodied data structure claim). Functional material in combination with an appropriate medium must be capable of producing a useful, concrete and tangible result when used in a computer system. Conversely, non-functional material per se is an abstract idea and therefore is not statutory. Examples of non-functional material include music, data formats (frames or packets) or other mere arrangements of facts or compilations of data. Non-functional material, when stored to be*

read or output by a computer without any functional interrelationship, does not impart functionality to the computer. Therefore, non-functional material is not statutory even if in combination with a physical medium because no useful, concrete or tangible result is produced. Thus, the difference between functional material, such as a computer program and non-functional material, such as a data packet, is that when stored on a physical medium, there is a useful, concrete or tangible result produced. Storing a data packet on a physical medium is a function merely directed towards a collection of data and NOT to impart functionality to the physical medium.” (Official Action, pgs. 6-7). The Official Action concludes that “Applicant’s claims directed towards a data telegram is not statutory and are therefore rejected under §101. Based on the foregoing discussion, Applicant’s claims directed towards a data telegram is directed towards non-functional descriptive material and therefore is not statutory. Therefore, Applicant’s claims 11, 14-21 and 24-30 fail to comply with the §101 requirement for failing to claim statutory subject matter.” (emphasis added; Official Action, pg. 7).

In the Official Action as noted above, it is contended that the “Office has established a new position with regards to claims directed towards data structures and collections of data and is set forth below.” While the Official Action fails to specifically cite to an explicit basis for this “new position,” it is assumed that the Official Action is referring to the “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility,” 1300 Off. Gaz. Pat. Office 142 (Nov. 22, 2005)(Patent Subject Matter Eligibility Interim Guidelines), (hereinafter “the Guidelines”). A large portion of these Guidelines has been set forth in the current version of MPEP §2106.

In the emphasized portion of the Official Action noted above, the Official Action is contending that non-functional descriptive material can never be statutory subject matter, even if

combined with a physical medium, because no useful, concrete or tangible result is ever produced. The Official Action then concludes that because applicant's claims directed towards a data telegram which allegedly comprises non-functional descriptive material, these claims are non-statutory.

Upon a fair and proper reading of the Guidelines, the contention in the Official Action noted above that non-functional descriptive material can never be statutory subject matter because no, useful, concrete or tangible result is ever produced is incorrect and an impermissible narrow interpretation of the Guidelines and not supported by the Guidelines. The Guidelines do not explicitly preclude non-functional descriptive material from ever being deemed as statutory subject matter. Instead, the Guidelines, with respect to any computer-related invention, direct the focus on the “**claimed invention as a whole**” and whether the invention accomplishes “**a practical application**” and produces a “**useful, concrete and tangible result**” in determining whether or not the claims recite statutory subject matter. (emphasis added; Guidelines, section (II)(A), first paragraph, citing State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F.3d 1368, 1373-74, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998)). This is because the claimed invention must have some “real world” value as, e.g., a practical application of an abstract idea, as opposed to merely being an abstract idea itself. *“While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirements of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.”* (emphasis in original; Guidelines, section (IV)(C)). In addition, to satisfy

section 101 requirements, the claim must be for a practical application of the §101 judicial exception, which can be identified in various ways: the claimed invention “transforms” an article or physical object to a different state or thing; or the claimed invention otherwise produces a useful, concrete and tangible result. (Guidelines, section (IV)(C)(2)).

In light of the foregoing framework, the analysis of whether claims 11, 14-21 and 24-30 comprise statutory subject matter necessarily focuses on the claimed invention as a whole. Independent claims 11 and 21 are somewhat similar in that they both recite a data telegram having a data section and a header section, together with certain features of each section. Independent claim 28 differs in that it recites a MOST multimedia system comprising a plurality of multimedia devices that communicate with each other over a path defining a MOST network using data telegrams that each has a data section and a header section, with each section having certain features.

Applying the foregoing principles to claims 11 and 21, it is clear that the data telegram claimed therein, when considered as a whole, at the very least constitutes a practical application of an abstract idea and not an abstract idea in itself, in contrast to the contention in the Official Action. The utility of the invention of claims 11 and 21 is specific, substantial and credible in that the data telegram allows for the transmission of data within one network where the data is formatted in accordance with another network. (See the corresponding U.S. published patent application 2002/0023137, paragraph [0004]). (See also MPEP §2107 and Guidelines, section (IV)(C)(2)(b)(1)). Further, the data telegram of claim 11 and 21 also produces a tangible result, because the claim recites the data telegram, which itself is more than just a §101 judicial exception (i.e., more than an abstract idea). (See Guidelines, section (IV)(C)(2)(b)(2)). Finally, the data telegram of claim 11 and 21 produces a concrete result – an assured and substantially

repeatable result – where the data section and the header section of the data telegram are formatted in accordance with specific features called for in the claims. (See Guidelines, section (IV)(C)(2)(b)(3)). Thus, it is respectfully submitted that independent claims 11 and 21, together with their respective dependent claims, constitute statutory subject matter in view of the framework set forth in the Guidelines.

With respect to the MOST multimedia system of independent claim 28, a similar analysis leads to the conclusion that the claimed invention **as a whole** constitutes a practical application – here, the entire MOST system. The claimed portion of claim 28 of the data telegram is just that – a portion of the entire MOST multimedia system of claim 28. Again, however, the Guidelines require the claimed invention to be considered as a whole, as noted above. However, an examination of the data telegram portion of claim 28 reveals that for the same reasons stated above with respect to the data telegram of claims 11 and 21, the data telegram portion of claim 28 constitutes statutory subject matter. As a result, the entire MOST multimedia system of claim 28 constitutes statutory subject matter.

In light of the foregoing, it is respectfully submitted that the non-statutory subject matter rejection is now moot and should be removed, and that claims 11, 14-21 and 24-30 are in condition for allowance and should be passed to issuance

5. Claims 21 and 24-30 currently stand rejected for allegedly failing to comply with the enablement requirement. Specifically, the Official Action contends that independent claims 21 and 28 recite a MOST network having a MOST standard, and that according to explicit teachings of the prior art (i.e., the MOST Specification Framework Rev. 1.1), “MOST is a technology rather than a networking standard [see MOST specification, pg. 47, section 12].” (emphasis

added; Official Action, pg. 7). The Official Action contends that “Applicant’s claims directly contradict with what was well known at the time the invention was made.” (emphasis added; Official Action, pgs. 7-8). The Official Action concludes that “*Applicant’s specification does not provide any explanation to resolve the discrepancy and therefore, one of ordinary skill in the art would not have been able to make or use the invention as claimed.*” (emphasis added; Official Action, pg. 8).

It is respectfully submitted that the specification does indeed enable one of ordinary skill in the art to make and use the claimed invention. Firstly, it is submitted that the Official Action is improperly placing undue weight on a single statement in the cited MOST specification; that is, “*MOST is a technology rather than a networking standard*” to support its broad and overly simplistic contention that the MOST specification only defines a technology and does not define a standard – specifically, a networking standard. However, this cited statement from the MOST specification, when properly taken in context, does not preclude the MOST specification from defining a standard. Instead, this cited statement means that MOST is **more** of a technology than a **networking** standard. That is, this statement cannot be construed in an absolute sense to mean that the MOST specification forecloses all interpretations of MOST as comprising a standard, including a networking standard. This is because of the explicit use of the term “rather”, which is comparative by nature. If the MOST specification foreclosed the definition of any type of standard, then the MOST specification clearly could have stated this fact. However, the same MOST specification cited in the Official Action contains several explicit references to the fact that the MOST specification does indeed define a standard, which is consistent with the interpretation of the cited statement above as being comparative instead of absolute in nature such that the MOST specification defines both a technology and a standard. For example, “[t]he

*objective of the entire specification is to describe the MOST system in terms of physical layer, transport layer, link layer, network management and the programming interface required to develop and build systems and devices that are compliant with this standard.*" (emphasis added; MOST specification, pg. 7, section 1.2) Also, "[t]his document provides an overview of the MOST technology for all readers. More detailed information defining the MOST standard can be found in the associated documents:". (emphasis added; MOST specification, pg. 8, section 1.5). Further, "[t]he MOST technology is specified to be an industry de facto standard for low cost, high bandwidth data communications in consumer, telecommunications and computing applications based on plastic fiber optics as a transportation layer." (emphasis added; MOST specification, pg. 9, section 2.2). Therefore, ample evidence is contained within the MOST specification to support the fact that the MOST specification defines a standard as well as a technology.

However, assuming for the moment without admitting as much that the contention in the Official Action cited above is correct (i.e., that the MOST specification defines a technology and does not also define a standard), it is submitted that the specification nevertheless contains sufficient disclosure to enable one of ordinary skill in the art to make and use the invention as claimed. The corresponding U.S. published patent application 2002/0023137 describes and illustrates the invention data telegram of the present invention. For example, paragraphs [0016]-[0021], together with FIGs. 1-5, describe and illustrate in detail various embodiments of a MOST telegram, including the header section formatted in accordance with the MOST protocol or standard. For example, "FIG. 1 shows a first embodiment of an inventive data telegram. This is a data telegram, whose header section A corresponds to the MOST protocol or standard. The first four bytes 0, 1, 2, and 3 are reserved for control signals. The fifth byte 4 contains the

*special standard information.*” (Paragraph [0017]). This disclosure clearly teaches someone of ordinary skill in the art about the composition of a header portion of a data telegram formatted in accordance with the MOST protocol or standard in sufficient detail to enable that someone to make and use the invention. As it is well known that a patent applicant can be his/her own lexicographer, it is of no consequence that the present specification refers to a “MOST protocol or standard” in its teaching. What suffices is that the present specification contains the requisite amount of detailed teaching. Instead, it suffices to satisfy the enablement requirement that the specification contains sufficient disclosure to enable one of ordinary skill in the art to make and use the present invention as in independent claims 21 and 28. It is respectfully submitted that the present specification achieves this.

In light of the foregoing, it is respectfully submitted that the lack of enablement rejection should be removed, and that claims 21 and 24-30 are in condition for allowance and should be passed to issuance.

6. Claims 11, 14-21 and 24-30 currently stand rejected for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter deemed to be the present invention.

Claims 11, 21 and 28 have been amended.



7-8. Claims 11, 14, 18 and 20 currently stand rejected as allegedly being obvious in view of U.S. Patent 6,771,663 to Jha (hereinafter “Jha”).

### Claim 11

Claim 11 recites a data telegram for transmitting data within a host network having a standard for the transmission of the data within the host network. The data telegram includes:

“a data section having a pair of regions, a first region in the pair of regions containing data formatted in a first instance in accordance with an extraneous standard that is different than the host network standard, the first region containing data formatted in a second instance in accordance with the host network standard; and

a header section that contains information specifying that the data within the first region of the data section are formatted in the first instance according to the extraneous standard and specifying that the data within the first region of the data section are formatted in the second instance according to the host network standard, where a second region in the pair of regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the host network standard specified by the information in the header section, where a telegram identification portion of the header section that specifies an identification of data associated with the host network standard when the data in the first region of the data section are formatted in accordance with the host network standard in the second instance contains an identification of data associated with the extraneous standard in the first instance in place of the identification of data associated with the host network standard in the second instance, and where a telegram length portion of the header section that specifies a length of the data associated with the host network standard when the data in the first region of the data section are formatted in accordance with the host network standard in the second instance no longer specifies the length of the data associated with the host network standard when the data in the first region of the data section are formatted in accordance with the extraneous standard in the first instance.” (claim 11, emphasis added)

Upon a fair and proper reading, Jha fails to disclose the features of claim 11 where both the data section and the header section of the data telegram contain information that differs depending on whether the formatting of these two sections is of an extraneous standard in a first instance or of a host network standard in a second instance. Jha fails to disclose a “host” data standard, which

necessarily leads to a failure to disclose the features of claim 11 noted above. Instead, Jha discloses a SONET network and its typical intended purpose for use with telephony, together with the problems associated with attempts to adapt the SONET network specifically for something other than telephony – i.e., for data transmission purposes. (Col. 1, line 23 to col. 5, line 41). In an attempt to solve these problems, Jha discloses a hybrid data transport (HDT) protocol for use with a SONET network. (Col. 6, line 56 to Col. 7, line 2). The remainder of Jha's specification discloses the HDT protocol in detail. (Col. 7, line 3 to Col. 14, line 66). Significantly, however, is that nowhere in this disclosure is there any teaching or suggestion of a host network standard along with an extraneous standard in two separate instances. All of the various network standards disclosed in Jha (e.g., POS, ATM, PDH, etc.) are data standards extraneous to the typical telephony information (i.e., "standard") transmitted within a SONET network. Even the disclosure in col. 11, lines 26-37, along with the accompanying illustration in FIG. 11, fail to disclose or suggest a host standard. Instead, that disclosure determines if either an HDT data frame is presently being transmitted on the SONET network or if one of some other data types (e.g., POS, ATM or PDH) is presently being transmitted on the SONET network.

Thus, Jha fails to disclose the features of claim 11 where the data section and the header section of the data telegram contain information that differs depending on whether the formatting of these two sections is of an extraneous standard in a first instance or of a host network standard in a second instance. As a result, it is submitted that the obviousness rejection of claim 11, together with its dependent claims 14, 18 and 20, is moot and should be removed, and that claim 11, together with claims 14, 18 and 20, are in condition for allowance and should be passed to issuance.

9. Claims 15 and 16 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in Jha and the MOST Specification Framework Rev. 1.1 (hereinafter “the MOST Spec”).

It is submitted that this rejection is now moot, since claims 15 and 16 each depends directly from claim 11, which is patentable for at least the reasons set forth above.

10. Claims 17 and 19 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in Jha and U.S. Patent 6,172,980 to Flanders (hereinafter “Flanders”).

It is submitted that this rejection is now moot, since claims 17 and 19 each depends directly from claim 11, which is patentable for at least the reasons set forth above.

11-13. Claims 21, 24-26 and 28-30 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in the MOST Spec and Jha.

#### **Claim 21**

Claim 21 recites a data telegram for transmitting data within a Media Oriented Systems Transport (MOST) network having a MOST standard that defines the transmission of data within the MOST network. The data telegram includes:

“a data section having a pair of regions, a first region in the pair of regions containing data formatted in a first instance in accordance with an extraneous standard that is different than the MOST standard, the first region containing data formatted in a second instance in accordance with the MOST standard; and  
a header section having a plurality of bytes, a predetermined region of the header section having information specifying that the data within the first region of the data section are formatted in the first instance according to the extraneous standard and specifying that the data within the first region of the data section are formatted in the second instance according to the MOST standard, where a second

region in the pair of regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the MOST standard specified by the information in the header section, where a telegram identification portion of the header section that specifies an identification of data associated with the MOST standard when the data in the first region of the data section are formatted in accordance with the MOST standard in the second instance contains an identification of data associated with the extraneous standard in the first instance in place of the identification of data associated with the MOST standard in the second instance, and where a telegram length portion of the header section that specifies a length of the data associated with the MOST standard when the data in the first region of the data section are formatted in accordance with the MOST standard in the second instance no longer specifies the length of the data associated with the MOST standard when the data in the first region of the data section are formatted in accordance with the extraneous standard in the first instance.” (claim 21, emphasis added)

The Official Action contends that the MOST Spec discloses “*a data telegram comprising a data section containing data formatted in a first instance in accordance with an extraneous standard that is different than the MOST standard, the first region containing data formatted in a second instance in accordance with the MOST standard [section 2.5 | sections 5, 6.7, 6.8. (1-4) where: the MOST standard is compatible with a number of different protocols, the packets of which are transported to the various nodes using the MOST standard]*.” (Official Action, pgs. 11-12). The Official Action recognizes that the MOST Spec “*does not explicitly disclose that the header section has a predetermined region of which contains information specifying that the data section is formatted according to the extraneous standard, that the data section has a pair of regions, or that the header section contains a telegram identification portion and a telegram length portion.*” (Official Action, pg. 12). The Official Action then contends that Jha discloses certain features not disclosed in the MOST Spec. (Official Action, pgs. 12-13).

Upon a fair and proper reading, the MOST Spec fails to disclose with any specificity the claimed features of claim 21 of where the data section and the header section of the data telegram

contain information that differs depending on whether the formatting of these two sections is of the host network standard in one instance or of an extraneous standard in another instance. Instead, the cited sections of the MOST Spec merely disclose the broad and vague concept that “[a] *MOST network can be used in conjunction with a number of different protocols.*” (MOST Spec, pg. 12 – Section 2.5) without disclosing any detailed structure or methodology on how this is accomplished. An additional cited section, Section 5, of the MOST Spec further fails to disclose with any specificity how the different protocols are utilized. In fact, as noted above, the Official Action correctly contends that “*the packets of which are transported to the various nodes using the MOST standard.*” A fair and proper interpretation of this disclosure is that the various protocols are nevertheless formatted according to the MOST Spec and not of some extraneous specification, since they are admitted to be transmitted by the MOST standard.

Further, similar to the discussion above with respect to claim 11, upon a fair and proper reading, Jha fails to disclose the feature of claim 21 where the data section and the header section of the data telegram contain information that differs depending on whether the formatting of these two sections is of an extraneous standard in a first instance or of the MOST standard in a second instance. More specifically, Jha fails to disclose a “host” data standard. Instead, Jha discloses a SONET network and its typical intended purpose for use with telephony together with the difficulties associated with attempts to adapt the SONET network specifically for something other than telephony – i.e., for data transmission purposes. (Col. 1, line 23 to Col. 5, line 41). In an attempt to solve these difficulties, Jha proposes a hybrid data transport (HDT) data protocol for use with a SONET network. (Col. 6, line 56 to Col. 7, line 2). The remainder of the specification of Jha discloses the HDT protocol in detail. (Col. 7, line 3 to Col. 14, line 66). However, nowhere in this disclosure is there teaching or suggestion of a host network standard

along with an extraneous standard in two separate instances. The various network standards disclosed in Jha (e.g., POS, ATM, PDH, etc.) are standards extraneous to the typical non-data telephony information transmitted within a SONET network. Even the disclosure at col. 11, lines 26-37 and the accompanying illustration in FIG. 11 fails to disclose or suggest a host standard. Instead, the disclosure there determines if either an HDT data frame is presently being transmitted on the SONET network or if one of other data types (e.g., POS, ATM or PDH) is presently being transmitted on the SONET network. Thus, Jha fails to disclose the features of claim 21 where the data section and the header section of the data telegram contain information that differs depending on whether the formatting of these two sections is of the host network standard in one instance or of an extraneous standard in another instance.

In light of the foregoing, it is respectfully submitted that the MOST Spec and Jha are not properly combinable to render claim 21 obvious. However, assuming for the moment that the MOST Spec and Jha are properly combinable, without admitting as much, even if the references were combined as alleged in the Official Action, the resultant combination still fails to disclose various features of claim 21 discussed above, including, the features of where the data section and the header section of the data telegram contain information that differs depending on whether the formatting of these two sections is of the host network standard in one instance or of an extraneous standard in another instance.

As a result, it is submitted that the obviousness rejection of claim 21, together with its dependent claims 24-26, is moot and should be removed, and that claim 21, together with claims 24-26 are in condition for allowance and should be passed to issuance.

**Claim 28**

Since claim 28 stands rejected for similar reasons as claim 21, the discussion above with respect to claim 21 applies to claim 28. As a result, it is submitted that the obviousness rejection of claim 28, together with its dependent claims 29-30, is moot and should be removed, and that claim 28, together with claims 29-30 are in condition for allowance and should be passed to issuance.

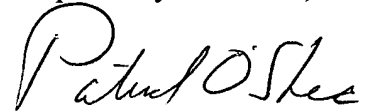
14. Claim 27 currently stands rejected for allegedly being obvious in view of the combined subject matter disclosed in the MOST Spec, Jha and Flanders.

It is submitted that this rejection is now moot, since claim 27 depends directly from claim 21, which is patentable for at least the reasons set forth above.

For all the foregoing reasons, reconsideration and allowance of claims 11, 14-21 and 24-30 are respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,



Patrick J. O'Shea  
Reg. No. 35,305  
O'Shea, Getz & Kosakowski, P.C.  
1500 Main Street, Suite 912  
Springfield, MA 01115  
(413) 731-3100, Ext. 102